Trade and Industrial Education
***Course:* Automotive: Brake Systems**
Course Code # 5712
1 Credit

School Year _____

Term:____Fall____Spring

Student:	Grade:
Teacher:	School:
Number of Competencies in Course:	**41**
Number of Competencies Mastered:	
Percent of Competencies Mastered:	

STANDARD 1.0: Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
1.1	Exhibit positive leadership skills.		
1.2	Participate in SkillsUSA-VICA as an integral part of classroom instruction.		
1.3	Assess situations and apply problem-solving and decision-making skills to client relations in the community and workplace.		
1.4	Demonstrate the ability to work cooperatively with others in a professional setting.		

STANDARD 2.0: Students will demonstrate automotive technology safety practices, including Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA) requirements, for an automotive repair facility.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
2.1	Determine the safe and correct application for chemicals used in brake systems.		
2.2	Use protective clothing and safety equipment.		
2.3	Use fire protection equipment.		
2.4	Follow OSHA and EPA regulations and manufacturer specifications affecting brake systems technology.		
2.5	Respond to safety communications referring to brake systems.		
2.6	Pass with 100 % accuracy a written examination relating to safety issues.		
2.7	Pass with 100% accuracy a performance examination relating to safety.		
2.8	Maintain a portfolio record of written safety examinations and equipment examinations for which the student has passed an operational checkout by the instructor.		

STANDARD 3.0: Students will apply fundamental science concepts to automotive brake technology.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
3.1	Examine how physics concepts apply to automotive brake system operation.		
3.2	Explore the application of fundamental laws of hydraulics to brake hydraulic systems.		
3.3	Analyze the characteristics and properties of liquids as applied to automotive brake fluid.		

STANDARD 4.0: Students will properly test, diagnose, service, and repair brake hydraulic systems.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
4.1	Diagnose brake hydraulic systems and determine necessary action.		
4.2	Inspect and repair or replace master cylinders and lines of the hydraulic system.		
4.3	Inspect and replace switches and valving devices.		
4.4	Follow specific safety guidelines and regulations for brake fluids.		

STANDARD 5.0: Students will properly test, diagnose, service, and repair drum brake systems.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
5.1	Diagnose drum brake systems and determine necessary action.		
5.2	Remove, clean, and inspect drum brake assemblies.		
5.3	Repair, replace, and adjust drum brake components.		
5.4	Diagnose, remove, and replace pneumatic (vacuum) and hydraulic power brake boosters.		
5.5	Follow specific safety guidelines and regulations for working on drum brake systems.		

STANDARD 6.0: Students will properly test, diagnose, service, and repair disc brake systems.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
6.1	Diagnose disc brake systems and determine necessary action.		
6.2	Remove, clean, and inspect disc brake system components.		
6.3	Check operation of disc brake system and components.		
6.4	Repair, replace, install, and adjust disc brake system components.		
6.5	Diagnose, remove, and replace pneumatic (vacuum) and hydraulic power brake boosters.		
6.6	Follow specific safety guidelines and regulations for disc brake systems.		

STANDARD 7.0: Students will properly test, diagnose, service, and repair antilock brake systems (ABS).

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
7.1	Test, inspect, and diagnose antilock brake systems (ABS) and components and determine necessary action.		
7.2	Repair, service, replace, and adjust antilock brake system (ABS) components.		
7.3	Demonstrate safe practices specific to antilock brake systems (ABS).		

STANDARD 8.0: Students will demonstrate communication skills required in the automotive service industry.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
8.1	Communicate and comprehend oral and written information typically occurring in the automotive service workplace referring to brake systems.		
8.2	Solve brake problems and make decisions using a logical process, based on information communicated to them.		
8.3	Use teamwork skills to accomplish goals, solve problems, and manage conflict within groups.		

STANDARD 9.0: Students will demonstrate interpersonal and employability skills required in the automotive service industry.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
9.1	Analyze relationships between work ethics, organizational skills, and personal job success.		
9.2	Demonstrate attitudes conducive to working in a team.		
9.3	Compare the correlation between a clean orderly work environment and successful and efficient job performance.		
9.4	Assess implications of diversity for communities and workplaces.		
9.5	Develop individual time management and work sequencing skills.		

Additional Comments _____